

CLAIMS:

We claim:

- 1 1. A database access system comprising:
- 2 a universal database connectivity driver having a first exposed interface through
- 3 which access to a database server can be provided;
- 4 a database proxy driver registered with said universal database connectivity
- 5 driver, said database proxy driver having a second exposed interface which conforms
- 6 with said first exposed interface of said universal database connectivity driver, said
- 7 database proxy driver having a configuration for invoking at least one auxiliary task in
- 8 addition to providing access to said database server through said first exposed
- 9 interface of said universal database connectivity driver; and,
- 10 a database driven application programmatically linked to said database proxy
- 11 driver.
- 2 2. The database access system of claim 1, wherein each of said universal
- 3 database connectivity driver, database proxy driver and database driven application are
- disposed in an edge device in a computer communications network.
- 1 3. The database access system of claim 2, wherein said auxiliary task is load
- 2 balancing.
- 1 4. The database access system of claim 1, wherein said auxiliary task is caching.

1 5. The database access system of claim 1, further comprising:
2 a log file of data request meta-information; and,
3 an application analyzer configured to tune operation of said auxiliary task based
4 upon said meta-information.

1 6. A database access method, the method comprising:
2 receiving a database connectivity request through a corresponding first exposed
3 database connectivity method from a database driven application;
4 forwarding said database connectivity request to an underlying database
5 connectivity driver through a corresponding second exposed method having a method
6 prototype which matches a method prototype of said first exposed database
7 connectivity method; and,
8 performing at least one auxiliary task in addition to forwarding said database
9 connectivity request.

1 7. The database access method of claim 6, further comprising performing each of
2 the receiving, forwarding and performing steps in an edge device.

1 8. The database access method of claim 7, wherein said performing step
2 comprises performing a load balancing task.

1 9. The database access method of claim 7, wherein said performing step
2 comprises performing a database caching task.

1 10. The database access method of claim 6, further comprising:
2 collecting meta-data for each received database connectivity request; and,
3 modifying operation of said auxiliary task based upon an analysis of said
4 collected meta-data.

1 11. The database access method of claim 10, wherein said modifying step
2 comprises generating rules which direct database connectivity requests to particular
3 instances of a database server which are most likely to respond quickly based upon
4 database latency patterns inherent in said collected meta-data.

1 12. The database access method of claim 11, wherein said modifying step
2 comprises selectively caching result sets in a database cache based upon request
3 frequency patterns inherent in said collected meta-data.

1 13. A machine readable storage having stored thereon a computer program for
2 providing database access, the computer program comprising a routine set of
3 instructions for causing the machine to perform the steps of:
4 receiving a database connectivity request through a corresponding first exposed
5 database connectivity method from a database driven application;
6 forwarding said database connectivity request to an underlying database
7 connectivity driver through a corresponding second exposed method having a method

8 prototype which matches a method prototype of said first exposed database
9 connectivity method; and,
10 performing at least one auxiliary task in addition to forwarding said database
11 connectivity request.

1 14. The machine readable storage of claim 13, further comprising performing each of
2 the receiving, forwarding and performing steps in an edge device.

1 15. The machine readable storage of claim 14, wherein said performing step
2 comprises performing a load balancing task.

1 16. The machine readable storage of claim 14, wherein said performing step
2 comprises performing a database caching task.

1 17. The machine readable storage of claim 13, further comprising:
2 collecting meta-data for each received database connectivity request; and,
3 modifying operation of said auxiliary task based upon an analysis of said
4 collected meta-data.

1 18. The machine readable storage of claim 17, wherein said modifying step
2 comprises generating rules which direct database connectivity requests to particular
3 instances of a database server which are most likely to respond quickly based upon
4 database latency patterns inherent in said collected meta-data.

1 19. The machine readable storage access method of claim 17, wherein said
2 modifying step comprises selectively caching result sets in a database cache based
3 upon request frequency patterns inherent in said collected meta-data.

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